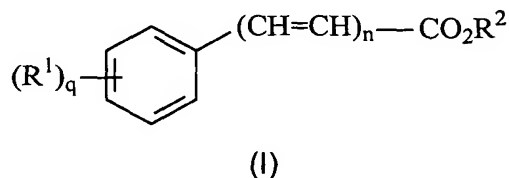


We claim:

1. A topical drug delivery system which comprises:

- a. a therapeutically effective amount of an antifungal agent;
- 5 b. at least one dermal penetration enhancer, which is a safe skin-tolerant ester sunscreen of formula (I):



10 wherein

$\text{R}^1$  is hydrogen, lower alkyl, lower alkoxy, halide, hydroxy or  $\text{NR}^3\text{R}^4$ ;

$\text{R}^2$  is a  $\text{C}_8$  to  $\text{C}_{18}$  alkyl,

15  $\text{R}^3$  and  $\text{R}^4$  are each independently hydrogen, lower alkyl or  $\text{R}^3$  and  $\text{R}^4$  together with the nitrogen atom to which they are attached form a 5- or 6-membered heterocyclic ring;

$n$  is 0 or 1, and

$q$  is 1 or 2,

20 wherein when  $n$  is 0 and  $\text{R}^1$  is  $\text{NR}^3\text{R}^4$ , then  $\text{NR}^3\text{R}^4$  is para-substituted; and wherein said dermal penetration enhancer is present in an amount of from about 10 to about 10,000 wt% based on the weight of the antifungal agent; and

c. a volatile liquid.

25 2. A topical drug delivery system according to claim 1, wherein the dermal penetration enhancer is octyl salicylate.

30 3. A topical drug delivery system according to claim 2, wherein the antifungal agent is selected from the list consisting of amorolfine, isoconazole, clotrimazole, econazole, miconazole, nystatin, terbinafine, bifonazole, amphotericin, griseofulvin, ketoconazole, fluconazole and flucytosine,

salicylic acid, fezatione, ticlatone, tolnaftate, triacetin, zinc pyrithione and sodium pyrithione.

4. A topical drug delivery system according to claim 2, wherein the antifungal agent is selected from the list consisting of butenafine, butoconazole, clioquinol, itraconazole, lanoconazole, neticonazole, tioconazole, terconazole, or pharmaceutically acceptable salts or derivatives of any one of the aforementioned antifungal agents.
5. A topical drug delivery system according to claim 2, wherein the antifungal agent is ciclopirox olamine.
6. A transdermal drug delivery system according to claim 1, wherein the volatile liquid is ethanol, isopropanol or mixture thereof.
7. A transdermal drug delivery system according to claim 6 comprising on a weight basis:
  - a. from about 0.1 to about 10% of the antifungal agent;
  - b. from about 1 to 10% of the dermal penetration enhancer; and
  - c. from about 40 to 99.8% ethanol, isopropanol or mixture thereof.
8. A topical drug delivery system according to claim 6 which comprises on a weight basis:
  - a. from about 2 to about 8% of the antifungal agent;
  - b. from about 1 to about 10% of the dermal penetration enhancer; and
  - c. from about 40 to 98% ethanol, isopropanol, ethyl acetate or mixture thereof; and
  - d. from about 0.5 to 10% water.
9. A topical drug delivery system according to claim 6 which comprises on a weight basis:
  - a. from about 3 to about 8% ciclopirox olamine;
  - b. from about 1 to about 10% octyl salicylate;

- c. from about 40 to 95 % ethanol and 40-95 % Ethyl Acetate; and
- d. from about 1 to 5% water.

- 5 10.A topical drug delivery system according to claim 6 which comprises on a weight basis:
- a. from about 3 to about 8% ciclopirox olamine;
  - b. from about 1 to about 5% octyl salicylate;
  - c. from about 45 to 95% ethanol, isopropanol, ethyl acetate or mixture thereof;
  - 10 d. from about 1 to about 5 % water; and
  - e. from about 0.5 to about 5% of a thickening agent.
- 15 11.A method for administering at least one local acting antifungal agent to an animal which comprises applying an effective amount of the antifungal agent in the form of a drug delivery system according to claim 1.
- 12.A method according to claim 11, wherein the antifungal agent is ciclopirox olamine.
- 20 13.A method according to claim 12, wherein the composition is applied to the skin of the human or animal covering a delivery surface area between 10 and 800 cm<sup>2</sup>.
- 25 14.A method according to claim 12 wherein the composition is applied to the skin of the human or animal covering a delivery surface area between 10 and 400 cm<sup>2</sup>.
- 30 15.A method according to claim 12, wherein the composition is applied to the skin of the human or animal covering a delivery surface area between 10 and 200 cm<sup>2</sup>.
- 16.A method according to claim 15, wherein the composition is applied using a fixed or variable metered dose applicator.